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EXAMINER

CHOWDHURY, TARIFUR RASHID

ART UNIT

PAPER NUMBER

2871

DATE MAILED: 06/19/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/072,981

Applicant(s)

SAKAKI ET AL.

Examiner

Tarifur R Chowdhury

Art Unit

2871

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 10 and 11 is/are rejected.
- 7) ☒ Claim(s) 2-9, 12 and 13 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 February 2002 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

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## DETAILED ACTION

### *Priority*

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### *Drawings*

2. Figures 9(a), 9(b) and 10 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

### *Specification*

3. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

### *Claim Rejections - 35 USC § 102*

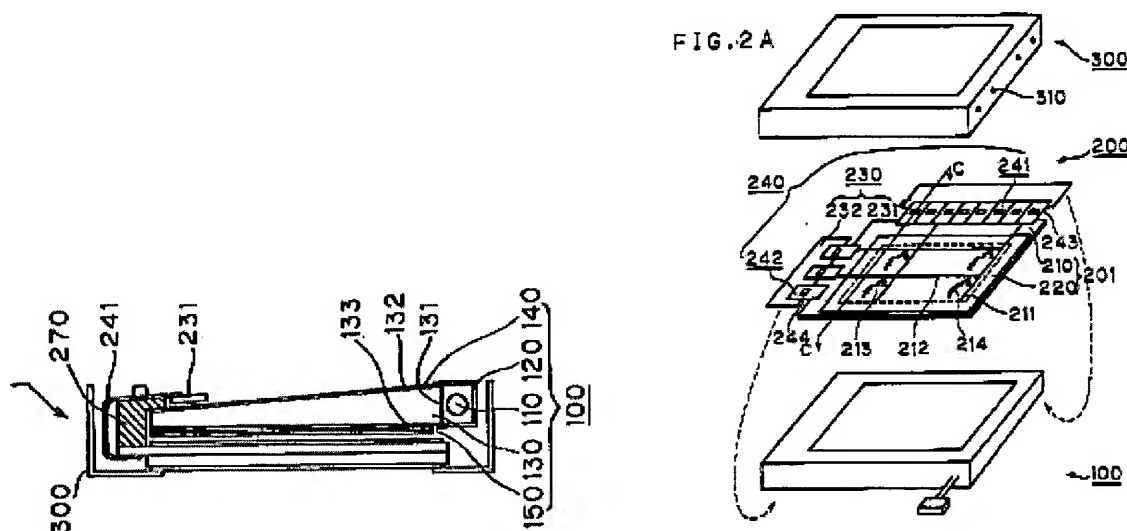
4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. **Claims 1, 10 and 11 are rejected under 35 U.S.C. 102(e) as being anticipated by Hashimoto, USPAT 6,417,897.**

6. Hashimoto discloses (col. 3, lines 7-14, 29-40, col. 4, 18-36) and shows in Figs. 1B-1C and 2A, a display module in which a sloped back surface member (back irradiation member) (130), having a cross sectional slope with respect to a display surface of a display panel (200), is provided face to face behind the display panel (200), and a flexible substrate for a signal line drive circuit (232) and a flexible substrate for a scanning line drive circuit (231) are connected to the display panel (200) so as to make a right angle with each other (Fig. 2), and are respectively so extended as to reach to a back surface of the sloped back surface member (130), wherein,



one of the flexible substrate for the signal line drive circuit (232) and the flexible substrate for the scanning line drive circuit (231) is so extended as to reach to the back surface of the sloped back surface member in such a manner that the one of the flexible substrate for the signal line drive circuit and the flexible substrate for the scanning line drive circuit is bent along the slope of the sloped back surface member (130) (Fig. 1B).

Accordingly, claims 1 and 10 are anticipated.

As to claim 11, Hashimoto also discloses that the back irradiation member (130) irradiates an irradiated surface with light from a light source (100).

***Allowable Subject Matter***

7. Claims 2-9, 12 and 13 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

8. The following is a statement of reasons for the indication of allowable subject matter:

As to claims 2 and 12, the prior arts of record do not anticipate or render obvious to one skilled in the art the claimed display module wherein one of the flexible substrate for the signal line drive circuit or the scanning line drive circuits made of a chip on film having a substrate thickness of 40  $\mu\text{m}$  or less. It is common to form flexible substrate with a chip on film (COF) since the COF type driving IC is loaded on a more flexible film than the TCP type driving IC. However, none of the prior arts alone or in combination with any other cited arts teach or suggest or motivate the one skilled in the art the claimed thickness along with other recitations.

As to claims 3 and 13, the prior arts of record do not anticipate or render obvious to one skilled in the art the claimed display module wherein one of the flexible substrate for the scanning line drive circuit and the signal line driving circuit has an oblique folding slit at a bending part wherein the bending part is formed along the slope of the sloped back surface member.

Claims 6-9 are objected due to their dependencies.

As to claim 5, the prior arts of record do not anticipate or render obvious to one skilled in the art the claimed display panel wherein one of the flexible substrate of the scanning line drive circuit and the signal line drive circuit is made of chip on film wherein the COF is such a COF that a conductive film is directly joined with a substrate material wherein the conductive film is covered with a resist whereas an input terminal that receives image data, an ILB pad that is connected with the IC chip, and an output terminal that is connected with the display panel are left uncovered.

### ***Conclusion***

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a) USPAT 6,466,195 discloses a flat panel display unit wherein a driving circuit substrate is disposed along the other end of the light guide plate, thereby achieving thinning or downsizing of the unit.

b) USPAT 6,456,344 discloses a liquid crystal display having scanning line driving circuit and signal line driving circuit.

c) USPAT 5,978,060 is related to a liquid crystal display wherein driving circuit substrates are electrically connected to each other by using flexible electrode substrate therebetween.

d) USPAT 5,436,744 is related to a flexible liquid crystal display with integrated driving circuit.

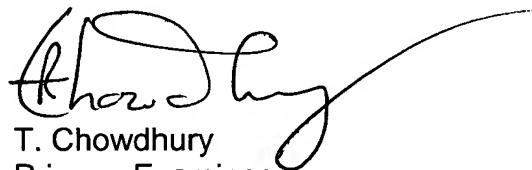
e) USPAT 4,862,153 is related to a flat display panel with framing for flexible substrate folding.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tarifur R Chowdhury whose telephone number is (703) 308-4115. The examiner can normally be reached on M-Th (6:30-5:00) Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William L Sikes can be reached on (703) 305-4842. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 746-7005 for regular communications and (703) 308-7724 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1782.



T. Chowdhury  
Primary Examiner  
Technology Center 2800

TRC  
June 11, 2003